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Re
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Date
16 September 2003

From: Paul J. Skwierawski, Direct Dial 703-312-6636

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Examiner Sisson:
I've revised independent claim 1 in view of our discussions, in an attempt to improve a clarity of such claim. Please review and provide return comments (tel: 703-312-6636 or fax 703-312-6666) as to whether such claim would overcome the 112, 2nd paragraph and 101 rejections/concerns. Any help (e.g., via markups to the claim) which you could give if needed to overcome the 112, 2nd paragraph and 101 rejections/concerns would be greatly appreciated and helpful to advance prosecution. Once we've come to agreement on an acceptably amended base claim, I should be able to get the client's approval within a day or two, whereupon I would similarly amend/adjust the other claims and file another amendment. Thanks in advance for all considerations.

Paul

1. (Currently Amended) A method of inspecting a DNA chip that includes a plurality of DNA probe cells having a DNA probe to which fluorescently labeled target DNA may hybridize, ones of the cells being of a microscopic dimensional size D, where DNA probes are arranged in a predetermined array, ~~which is obtained by hybridizing a target with DNA, said target being obtained by adding a desired fluorescent material to a DNA fragment formed by preprocessing from DNA that is an object to be inspected, said DNA chip including a plurality of L cells that are microscopic areas where a plurality of types of desired fragments are arranged in accordance with a predetermined rule,~~ comprising:

simultaneously irradiating a plurality of the cells of said DNA chip with a corresponding plurality of multi-spot excitation lights ~~simultaneously~~ through an objective lens for a time Δt that is longer than a fluorescent light attenuation time so as to generate fluorescent lights from any fluorescently labeled target DNA hybridized to ones of the DNA probes of the plurality of cells, ~~said DNA chip,~~ where each light of said multi-spot excitation lights having a spot diameter d that is smaller than ~~a dimension~~ the dimensional size D of a cell that it irradiates, ~~said each cell of said plurality of L cells,~~

dividing ~~an optical pass of~~ said generated fluorescent lights from said multi-spot excitation lights into separate fluorescent lights along separate optical paths,

detecting said separate fluorescent lights with a sensor after reducing components of said multi-spot excitation lights reflected from said DNA chip, ~~and entered into said optical pass of said generated fluorescent lights, and~~

~~getting information on~~ so as to catalog positions and intensities of ~~said~~ detected fluorescent lights ~~so as to enable measurement~~ which are representative of a coupled state of the hybridized target DNA on said DNA chip.